



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,265	12/18/2001	Rex E. Murray	2000U057.US	5510

25959 7590 08/24/2004

UNIVATION TECHNOLOGIES LLC
5555 SAN FELIPE, SUITE 1950
HOUSTON, TX 77056

EXAMINER


RABAGO, ROBERTO

ART UNIT	PAPER NUMBER
----------	--------------

1713

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/023,265	Applicant(s) MURRAY, REX E.	
	Examiner Roberto Rábago	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14, 18-22 and 24 is/are rejected.
- 7) ☒ Claim(s) 15-17, 23 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The remarks of item 9 of the Office action mailed 5/6/2004 are withdrawn in view of newly located prior art as set forth below.

Claim Objections

2. Claim 16 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim for the reasons set forth in item 4(c) of the Office action mailed 5/6/2004. Applicant's response filed 6/7/2004 has not properly responded to this issue because the response failed to address the issue of substituent R₃.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 20-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

(a) The amendment filed 5/6/2004 has broadened the scope of the claim to include all group 16 elements; however, support for this expansion of scope, wherein the ligand comprising any group 16 element forms a ring of 5-8 atoms with the transition metal, cannot be found in the specification as filed.

(b) The amendment filed 5/6/2004 has changed the meaning of the claim, wherein previously the ligand formed a ring of 5 to 8 atoms, the amended version states that the group 16 atom forms a ring of 5 to 8 atoms. Support for this new meaning cannot be found in the specification as filed.

Claim Rejections - 35 USC § 102

5. Claims 14, 20-22 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Ittel et al. (US 2002/0107345).

The reference discloses olefin polymerization catalysts comprising a transition metal complex and an activator (paragraphs 0005-0042). The specific ligand structures which are within the scope of the instant claims are shown as structures (VIII) and (X). These two complexes correspond to claimed structure (I) when one or both of n and m are zero, with R₂ and R₃ forming a ring, and further comprising an additional phenol group. When bonded, the structure would form a six member ring including the two nitrogen sites, and a five member ring including the OH site. Accordingly, the reference includes all claimed limitations.

6. Claims 14, 20 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Brookhart et al. (US 6,150,482).

The reference shows in Examples 12-14 an iron complex in combination with MMAO. The complex corresponds to claimed structure (I) when both of n and m are zero, with R₂ and R₃ forming a ring, and further comprising an additional imine group. Accordingly, the reference includes all claimed limitations.

7. Claims 14, 20 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Lavoie et al. (US 6,281,303)

The reference discloses olefin polymerization catalysts comprising a transition metal complex and an activator (col. 3, line 42 through col. 4, line 55). The specific ligand structures which are within the scope of the instant claims are shown as structures (LVIX), (LX) and (LXV). These complexes correspond to claimed structure (I) when one or both of n and m are zero, with R₂ and R₃ optionally forming a ring, and further comprising an additional imine or pyridine group. When bonded, the structure would form a five member ring including two nitrogen sites. Accordingly, the reference includes all claimed limitations.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 1713

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ittel et al. (US 2002/0107345).

The parent claims are discussed with respect to this reference above. While the reference does not specifically pair ligands (VIII) or (X) with any particular transition metals, the reference states in paragraph 0106 that suitable metals include Ti, Zr and Hf, providing motivation to use these metals with any of the ligands, including those shown as structures (VIII) and (X). Reasonable success would be expected using such combinations because patentee has indicated that effective polymerization catalysts would result.

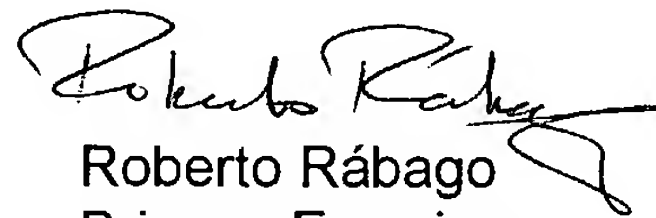
10. Claims 15, 17, 23 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberto Rábago whose telephone number is (571) 272-1109. The examiner can normally be reached on Monday - Friday from 8:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1713

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Roberto Rábago
Primary Examiner
Art Unit 1713

RR
August 19, 2004